

## Patent Abstracts of Japan

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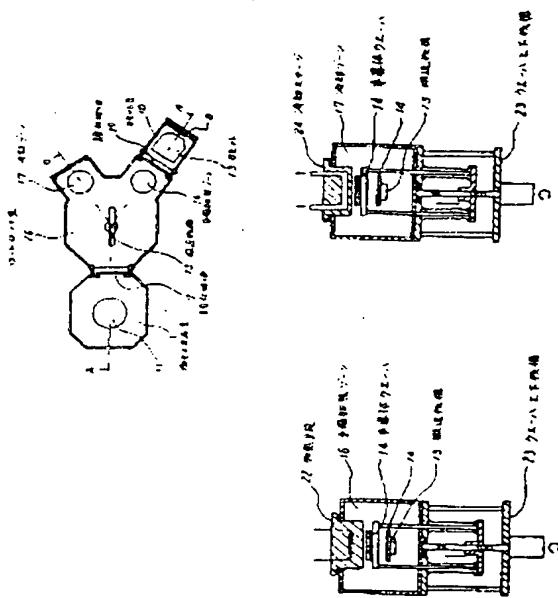
APPLICATION DATE : 23-10-89  
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TITLE : SEMICONDUCTOR WAFER  
 PROCESSOR



ABSTRACT : PURPOSE: To enable a film in excellent quality and high throughput to be formed by a method wherein a carrier system to deliver a wafer is arranged in open state in a vacuum vessel wherein a cassette chamber containing a cassette loaded with semiconductor wafers is formed to be air-tightly coupled so that the wafer may be pre-heated to be cooled down after surface processing.

CONSTITUTION: A cassette 13 is contained in a cassette chamber 18 to be vacuumized. A vacuum sluice valve 19 is opened, a wafer 14 is taken out of the cassette 13 by a carrier system 15 in a load-lock chamber 26 do as to be delivered to a wafer lifting mechanism 23; after processing in a heating zone 16, the wafer 14 is carried to a process reaction chamber 1 to be delivered to a wafer holding mechanism 11. Any processed wafer 14 is carried to the chamber 26 so as to be cooled down by a cooling down means in a cooling down zone B. After the lifting mechanism 23 in the heating zone 16 is shifted to a specified position, the carrier system 15 receives the wafer 14 from the lifting mechanism 23 in the cooling down zone B so as to contain the wafer 14 in the cassette 13 in the cassette chamber 18. Accordingly, the cooled down wafer 14 can be carried to the cassette 13 during the pre-heating process.

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